Centre for AIDS Reagents
Data Sheet

Reagent:	2',3'-didehydro-3'-deoxythymidine (Stavudine; D4T)
Catalogue:	**100397**
Lot Number:	5 NB25-20-4
Provided:	20 mg
Empirical formula:	$C_{10}H_{12}N_2O_4$
Molecular weight:	224.2
Purity:	95 – 99% (by HPLC)
Solubility:	Water; methanol; insoluble in hexanes
Mechanical Action:	Stavudine is a nucleoside analog of thymidine. Stavudine is phosphorylated by cellular enzymes to form stavudine triphosphate. Stavudine triphosphate inhibits the activity of HIV reverse transcriptase by competing with substrate deoxythymidine triphosphate and when incorporated causes termination of DNA chain elongation. Stavudine triphosphate inhibits cellular DNA polymerase and reduces synthesis of mitochondrial DNA.
Storage:	Room temperature. Once re-suspended, working aliquots can be stored at −20°C.
Contributor:	Division of AIDS, NIAID, NIH
Note:	This compound is restricted for "research purposes only" and is limited to 40 mg per requester per year. Not available for release to commercial organizations outside of the USA. Recipient agrees that the reagent (2', 3'-didehydro-3'-deoxy-thymidine (Stavudine D4T)) use is permitted only as a standard for in vitro and/or studies in animals for inhibition of HIV replication.

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